

## **AMENDMENTS TO THE CLAIMS**

Prior to the present communication, claims 1-15 and 18-49 were pending in the subject application. Each of claims 1, 2, 4, 8, 9, 12-15, 18-20, 23, 24, 26, 27 and 33-49 has been amended herein and claims 3, 25 and 32 have been canceled. As such, claims 1, 2, 4-15, 18-24, 26-31 and 33-49 remain pending. This Listing of Claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) A method for estimating appropriate advertisement inventory~~processing advertisement requests~~, the method comprising:

obtaining ~~[[a set of]]~~one or more advertisement target market segment criteria from an advertiser for delivering at least one advertisement;~~the set of advertisement target market segment criteria including one or more advertisement target market segment criterion;~~

utilizing a first computing process, generating a ~~[[set of]]~~target market segment ~~arrays~~array corresponding to each of the one or more ~~having a target market segment array corresponding to each~~advertisement target market segment criteria ~~criterion in the set of advertisement target market segment criteria,~~ wherein each target market segment array ~~in the set of target market segment arrays~~includes a plurality of array elements, each array element corresponding to ~~periods~~a period of time;

~~obtaining a request for an advertisement~~ an advertisement request from one of a user and a content provider, the advertisement request including one or

more target market data elements, ~~wherein and~~ the advertisement request is being associated with a time;[[ and]]

upon determining that at least one of the one or more target market data elements corresponds to a particular one of the one or more advertisement target market segment ~~criterion~~ criteria obtained from the advertiser, incrementing a numerical identifier in [[the ]]one or more of the plurality of array elements included in the target market segment array that corresponds to the particular one of the one or more advertisement target market segment ~~criterion~~ criteria, utilizing a second computing process; ~~and, the numerical identifier corresponding to the time associated with the advertisement request,~~

processing a plurality of numerical identifiers incremented in association with the one or more target market segment arrays to determine appropriate advertisement inventory at a particular time,

wherein the first and second computing processes are performed by one or more computing devices.

2. (Currently Amended) The method as recited in Claim 1, wherein generating a ~~set of target market segment arrays~~ array corresponding to each of the one or more ~~having a target market segment array corresponding to each advertisement target market segment~~ criteria ~~criterion in the set of advertisement target market segment~~ criteria includes:

parsing the one or more ~~set of~~ advertisement target market segment criteria in a particular order; and

generating ~~a set of~~ the target market segment arrays in an order corresponding to the particular order of the ~~set of~~ one or more advertisement target market segment criteria.

3. (Canceled).

4. (Currently Amended) The method as recited in Claim [[3]]1, wherein the processing of the plurality of numerical identifiers includes applying a trend analysis.

5. (Original) The method as recited in Claim 4, wherein the trend analysis includes a least-squared trend analysis.

6. (Previously Presented) The method as recited in Claim 4, wherein the trend analysis includes a linear regression trend analysis.

7. (Previously Presented) The method as recited in Claim 4, wherein the trend analysis includes a set theory trend analysis.

8. (Currently Amended) The method as recited in Claim 1, wherein the at least one advertisement is from an advertisement campaign.

9. (Currently Amended) The method as recited in Claim 8, wherein the [[set of]] one or more advertisement target market segment criteria includes user demographic information.

10. (Original) The method as recited in Claim 9, wherein the user demographic information includes a user age.

11. (Original) The method as recited in Claim 9, wherein the user demographic information includes a user gender.

12. (Currently Amended) The method as recited in Claim 8, wherein the ~~[[set of]]~~one or more advertisement target market segment criteria includes one or more keywords.

13. (Currently Amended) The method as recited in Claim 8, wherein the ~~[[set of]]~~one or more advertisement target market segment criteria includes an identifier of a target content provider.

14. (Currently Amended) The method as recited in Claim 1, wherein the numerical identifier corresponds to the time associated with the advertisement request~~each array in the set of target market segment arrays includes 168 array elements.~~

15. (Currently Amended) The method as recited in Claim 14, wherein each of the plurality of array elements ~~[[are]]~~is representative of a 1-hour time-increments increment.

16-17. (Canceled).

18. (Currently Amended) A computerized advertisement delivery system embodied on one or more computer-storage media having computer-executable instructions embodied thereon for processing advertisement requests, the advertisement requests each being associated with ~~a set of~~ one or more target market data elements, the system comprising:

~~a payload processor~~ an advertisement client component operable to obtain ~~[[a set of]]~~ one or more advertisement target market segment criteria from an advertiser for delivering at least one advertisement and generate a ~~[[set of]]~~ target

~~market segment arrays having a target market segment array~~ corresponding to each of the one or more advertisement target market segment ~~criterion in the set of advertisement target market segment criteria~~, wherein each target market segment array ~~in the set of target market segment arrays~~ includes a plurality of array elements, each array element corresponding to ~~periods~~ a period of time, the ~~payload processor~~ advertisement client component further operable to obtain an advertisement request from one of a user and a content provider, the advertisement request including one or more target market data elements, and increment a numerical identifier in one or more of the plurality of array elements corresponding to a time associated with the advertisement request;

an advertisement processing component operable to parse an advertisement associated with the advertisement request and estimate available advertisement inventory; and

~~a payload~~ an advertisement manager component ~~residing on at least one computing device, the payload manager operable to~~ obtain atomic market segment data by evaluating ~~evaluate the~~ [[set of]] one or more advertisement target market segment criteria using the [[set of]] target market segment arrays and to process the atomic market segment data ~~within the set of target market segment arrays~~ for at least one of capacity planning and inventory management.

19. (Currently Amended) The system as recited in Claim 18, wherein the at least one advertisement is from an advertisement campaign.

20. (Currently Amended) The system as recited in Claim 19, wherein the ~~set of one or more~~ advertisement target market segment criteria includes user demographic information.

21. (Original) The system as recited in Claim 20, wherein the user demographic information includes a user age.

22. (Original) The system as recited in Claim 20, wherein the user demographic information includes a user gender.

23. (Currently Amended) The system as recited in Claim 18, wherein the ~~set of one or more~~ advertisement target market segment criteria includes one or more keywords.

24. (Currently Amended) The system as recited in Claim 18, wherein the ~~set of one or more~~ advertisement target market segment criteria includes an identifier of a target content provider.

25. (Canceled).

26. (Currently Amended) The system as recited in Claim 18, wherein the ~~payload advertisement manager component~~ is operable to generate future ~~payload advertisement data~~ and ~~advertisement~~ request capacity data by processing the ~~atomic market segment~~ data ~~within the set of arrays~~.

27. (Currently Amended) The system as recited in Claim 26, wherein the ~~payload advertisement manager component~~ generates future inventory ~~payload advertisement~~ data by applying a forecasting method.

28. (Original) The system as recited in Claim 27, wherein the forecasting method includes a least-squared trend analysis.

29. (Previously Presented) The system as recited in Claim 27, wherein the forecasting method includes a linear regression trend analysis.

30. (Previously Presented) The system as recited in Claim 27, wherein the forecasting method includes a set theory trend analysis.

31. (Previously Presented) The method as recited in Claim 1, wherein the plurality of array elements includes 168 array elements.

32. (Canceled).

33. (Currently Amended) The system as recited in Claim 18, wherein the payload advertisement manager component is operable to generate advertisement campaign compliance data by processing the atomic market segment data ~~within the set of target market segment arrays~~.

34. (Currently Amended) ~~A computer-readable medium~~ One or more computer-storage media having computer-executable components embodied thereon that, when executed by a computing device, perform a method for estimating available advertisement inventory ~~processing payload requests, the computer-readable~~ computer-storage medium comprising:

a payload processing component operable to obtain ~~a set of advertisement target market segment criteria including~~ one or more advertisement target market ~~segment-criterion~~ criteria corresponding to an advertisement request and generate

[[a set of]]one or more target market segment arrays corresponding to each advertisement target market segment criterion~~in the set of advertisement target market segment criteria~~, wherein each target market segment array ~~in the set of target market segment arrays~~ includes a plurality of array elements corresponding to periods of time, wherein the payload processing component is further operable to obtain an advertisement request associated with a time, the advertisement request including one or more target market data elements, and wherein the payload processing component is further operable to increment a numerical identifier in the plurality of array elements corresponding to [[a]]the time associated with the advertisement request; and

a payload manager, the payload manager operable to evaluate the [[set of]]one or more advertisement target market segment criteria using the [[set of]]one or more target market segment arrays and to process data within the [[set of]]one or more target market segment arrays to estimate available advertisement inventory.

35. (Currently Amended) The ~~computer-readable medium~~ one or more computer-storage media as recited in Claim 34, wherein the advertisement request is associated with an advertisement from an advertisement campaign.

36. (Currently Amended) The ~~computer-readable medium~~ one or more computer-storage media as recited in Claim 34, wherein the [[set of]]one or more advertisement target market segment criteria includes user demographic information.



37. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 36, wherein the user demographic information includes a user age.

38. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 37, wherein the user demographic information includes a user gender.

39. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 34, wherein the ~~[[set of]]~~ one or more advertisement target market segment criteria includes one or more keywords.

40. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 34, wherein the ~~[[set of]]~~ one or more advertisement target market segment criteria includes an identifier of a target content provider.

41. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 34, further comprising a user information component operable to obtain a user identifier and provide user identifier criteria to the one or more target market data elements.

42. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 34, wherein each target market segment array ~~in the set of target market segment arrays~~ includes 168 array elements.

43. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 42, wherein each of the plurality of array elements ~~are is~~ representative of a 1-hour-increments time increment.

44. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 34, wherein the payload manager is operable to generate future payload and request capacity data by processing ~~[[the]]~~ data within the ~~[[set of]]~~ one or more target market segment arrays.

45. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 44, wherein the payload manager generates future inventory payload data by applying a forecasting method.

46. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 45, wherein the forecasting method includes a least-squared trend analysis.

47. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 45, wherein the forecasting method includes a linear regression trend analysis.

48. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 45, wherein the forecasting method includes a set theory trend analysis.

49. (Currently Amended) The ~~computer readable medium~~ one or more computer-storage media as recited in Claim 34, wherein the payload manager is operable to generate advertisement campaign compliance data by processing [[the ]]data within the [[set of]]one or more target market segment arrays.